

## **Clinical Testing**

### **Molecular Epidemiological Surveillance**

#### **Instructions for Molecular Strain Typing by Pulse Field Gel Electrophoresis (PFGE) – Specimen Collection and Submission**

##### **Special Instructions**

This test is performed only for specimens associated with foodborne investigations conducted by state and local health departments. Contact your local health department before submitting specimens to the laboratory.

##### **Specimen Requirements**

A pure bacterial isolate obtained from a variety of specimen sources (e.g. swab, stool, etc.). Refer to the requirements for the submission of specimens/isolates to the Illinois Department of Public Health enteric or bacteriology laboratories.

##### **Information Required**

Completed Communicable Diseases Laboratory Test Requisition (IL1482-1039).

##### **Test Methodology**

DNA from a pure isolate is digested with restriction endonucleases. The resulting DNA fragments are separated by size using pulsed field gel electrophoresis (PFGE). Using specialized software, DNA fragment migration patterns are analyzed in order to establish if genetic relatedness exists between different isolates of identical serotype.

##### **Rejection Criteria**

Improperly filled out Communicable Disease Test Requisition (IL1482-1039); no patient identifier on specimen; broken specimen tube; improper specimen submitted.

##### **Availability**

Chicago and Springfield laboratories with authorization. For further information, contact the Illinois Department of Public Health's Laboratory, Division of Infectious Diseases, Communicable Disease Section at 217-782-2016.

#### **Instructions for Detection of Norovirus (Types G1 and G2) by Real-time Reverse Transcriptase Polymerase Chain Reaction - Specimen Collection and Submission**

##### **Specimen Instructions**

This test is performed only for specimens associated with a foodborne investigation conducted by state and local health departments. Contact your local health department before submitting specimens to the laboratory.

##### **Specimen Requirements**

A minimum of 100 mg of stool placed in a plastic, screw-cap specimen container. Specimen container must be labeled with patient name and collection date. Specimen must be shipped on ice (4 C) overnight. Specimen can be stored at 4 C up to 60 days.

##### **Information Required**

Complete the Communicable Diseases Laboratory Test Requisition (IL1482-1039). Be sure to include the food-borne outbreak investigation number on this form.

##### **Test Methodology**

Real-time reverse transcriptase polymerase chain reaction for the detection of Norovirus, type G1 and G2.

##### **Criteria for Rejection**

Specimens are submitted that are not part of a foodborne investigation; laboratory request form that has improper or incomplete information, including the foodborne investigation number; laboratory request form that does not include patient name, name of submitter, test requested and the date of specimen collection.

#### **Instructions for Specimen Transport**

1. Store specimen(s) at 4 C until shipping. Ship specimens with ice packs overnight.
2. a. By ground transport
  - i. Wrap specimen(s) individually in absorbent material.
  - ii. Place wrapped specimen(s) into a biohazard labeled bag and seal securely.
  - iii. Place the test requisition(s) in the biohazard bag outside pouch so that it does not come in contact with the specimen sealed inside the bag.
  - iv. Place the sealed biohazard bag and test requisition(s) inside the shipping container.
  - v. The shipping container must be rigid such as a cooler and labeled with the UN 3373 Biological Substance Category B marking.
  - vi. Close securely.
- b. Commercial carrier by ground/air transport
  - i. Wrap specimen(s) individually in absorbent material.
  - ii. Place the wrapped specimen(s) inside a biohazard labeled 95 kPa bag and seal following the instructions on the bag.

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- iii. Place the test requisition(s) in the 95 kPa bag outside pouch so that it does not come in contact with the specimen sealed in the bag.
  - iv. Place the sealed 95 kPa bag and completed test requisitions(s) inside the outer shipping container and close securely.
  - v. Label the outer shipping container with the appropriate Illinois Department of Public Health laboratory address.
  - vi. Complete the return address section to include the name of the person shipping the package, business name and address and a business phone number.
  - vii. The shipping container must include the UN3373 Biological Substance Category B marking.
3. **Ship specimens by fastest delivery** to the attention of the Molecular Unit and include your return address. This can be accomplished by use of local courier, shipping corporations or U.S. Postal Service-Overnight.

Ship to:

Illinois Department of  
Public Health Laboratory  
Molecular Unit  
1155 S. Oakland Ave.  
Carbondale, IL 62901  
Phone: 618-457-5131  
Fax: 618-457-6995

Illinois Department of  
Public Health Laboratory  
Molecular Unit  
2121 W. Taylor St.  
Chicago, IL 60612-4224  
Phone: 312-793-4760  
Fax: 312-793-1322

Illinois Department of  
Public Health Laboratory  
Molecular Unit  
825 N. Rutledge St.  
Springfield, IL 62702-4910  
Phone: 217-782-6562  
Fax: 217-524-7924